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A case of rhabdomyolysis following COVID-19 recombinant vaccination

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Case Study

We report an experience with one case of rhabdomyolysis following COVID-19 recombinant vaccination. A 38-year-old man visited the emergency room with a high fever that developed approximately 9 hours after the COVID-19 recombinant vaccination. He was a healthy adult who exercised regularly. However, exercise was stopped 1 week before vaccination. He had no underlying disease. Shortly after receiving the COVID-19 recombinant vaccine, he had mild nausea and chest tightness, and blurred vision, but it improved transiently. Nine hours after vaccination, high fever, chills, and general myalgia began. He took acetaminophen, but the symptoms did not improve and the general myalgia worsened, accompanied by nausea. At the time of visit, the patient's vital signs were blood pressure 153/78 mmHg, pulse 94 beats per minute, respiratory rate 20 beats per minute, and body temperature 38.9°C. On physical examination, his tongue was dry and there was no swelling. He did not have oliguria or anuria.

In laboratory tests, creatine kinase 10,971 IU/L, alanine aminotransferase 70 U/L, aspartate aminotransferase 222 U/L, and lactate dehydrogenase 357 U/L were elevated. Urinalysis showed no urine occult blood or red blood cells. We started fluid supply, and after 3 days of treatment, creatine kinase decreased to 873 IU/L and symptoms improved, and the patient was discharged. Bone scans performed during hospitalization showed increased resorption in both thigh muscles. He did not administer the second dose of COVID-19 because of concerns about side effects. It is unclear whether the occurrence of rhabdomyolysis is related to the COVID-19 recombinant vaccine itself. However, rhabdomyolysis accompanied by fever occurred within 24 hours of vaccination with COVID-19, and it may be difficult to rule out causality. Therefore, it may be necessary to differentiate from rhabdomyolysis if there is severe muscle pain accompanied by fever after COVID-19 vaccination.

Figure 1. Bone scan findings in patients with rhabdomyolysis after COVID-19 recombinant vaccination

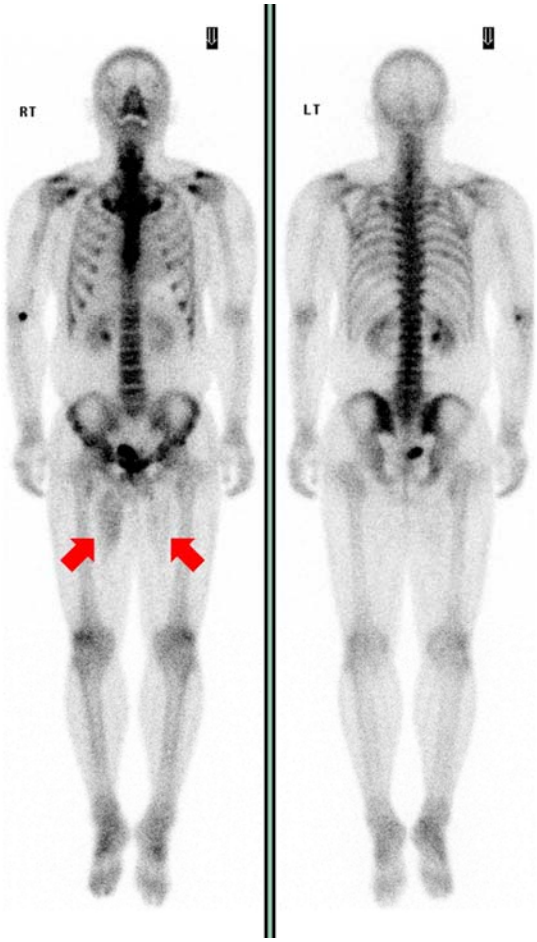

Figure 2. Changes in creatine kinase and renal function in patients with rhabdomyolysis following COVID-19 recombinant vaccination